

## ABSTRACT OF THE DISCLOSURE

A power converter nearly losslessly delivers energy and recovers energy from capacitors associated with controlled rectifiers in a secondary winding circuit, each  
5 controlled rectifier having a parallel uncontrolled rectifier. First and second primary switches in series with first and second primary windings, respectively, are turned on for a fixed duty cycle, each for approximately one half of the switching cycle. Switched transition times are short relative to the on-state and off-state times of the controlled rectifiers. The control inputs to the controlled rectifiers are cross-coupled from opposite  
10 secondary transformer windings.